

## ABSTRACT

### ANALYSIS OF ANTIBIOTIC USE IN PEDIATRIC DEPARTMENT INPATIENTS USING DEFINED DAILY DOSE (Study in Airlangga University Hospital)

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**Background:** Antibiotics are among the most commonly prescribed drugs for pediatric patients. Widespread use of antibiotics can promotes the spread of antibiotics resistance. One of the efforts to reduces the emergence resistant of microbes by applying prudent use of antibiotics that can be supported by evaluating the quantity of antibiotics use with ATC/DDD methods.

**Objective:** To review the pattern of antibiotic utilization, measure the quantity of antibiotic utilization using DDD 100/patient days and to analyze the trend of antibiotic utilization each month in Pediatric Department inpatients of Airlangga University Hospital

**Methods:** This study was descriptive observational study using patientmedical records of those discharged out of pediatric department of Airlangga University Hospital from from November 1<sup>st</sup> 2016 to April 30<sup>th</sup> 2017.

**Result:** The samples obtained were 127 patients consist of 67 male patients (52,76%) and 60 female patients (47,24%). The result indicated that the most used antibiotics for abdominal infection, respiratory tract infection, and urinary tract infection was ampicilline 4x250 mg (IV), meanwhile for CNS infection was ceftriaxone 2x500 mg IV. Antibiotic with the highest DDD values were ampicilline 41,92 DDD/100 patient-days, ceftriaxone 7,86 DDD/100 patient-days, and gentamicyn 1,65 DDD/100 patient-days. Trend analysis of antibiotic utilization showed that ampicilline was the most frequent antibiotic every month.

**Conclusion:** Ampicilline and ceftriaxone were the most frequent antibiotics that used almost in all sites of infection. Ampicilline has the highest DDD value 41,92 DDD/100 patient-days and was the most frequent antibiotic that precribed every month. In the future, further studies that related to the quality evaluation of antibiotics utilization (Gysen's) is expected to be conducted in Pediatric Department inpatients of Airlangga University Hospital

Keywords: Antibiotic utilization study, Defined Daily Dose, DDD/100 patient-days, Pediatric Department